

**Kerr-McGee Chemical Corp
Superfund Site
Columbus, Mississippi**

**Town Hall
July 27, 2023**



Meeting Agenda

- ✓ Introductions and Background
- ✓ Assessing Risks to People
- ✓ Local Contracting
- ✓ Redevelopment Planning
- ✓ Questions



Introductions and Background

Claire Woods
Multistate Trust



Introductions

Current Site Investigation and Cleanup Team

- ✓ U.S. Environmental Protection Agency (EPA)
 - Charles King, Remedial Project Manager
 - Rosemarie Nelson, Community Involvement Coordinator
- ✓ Mississippi Department of Environmental Quality (MDEQ)
 - Armed Rasberry, CERCLA Branch Chief
 - Taaka Scott-Bailey, Director, Office of Community Engagement
- ✓ Multistate Environmental Response Trust (Multistate Trust)
 - Theo von Wallmenich, Program Director, Federal Sites
 - Austin Hofmeister, Project Manager
 - Claire Woods, Director, Environmental Justice Program



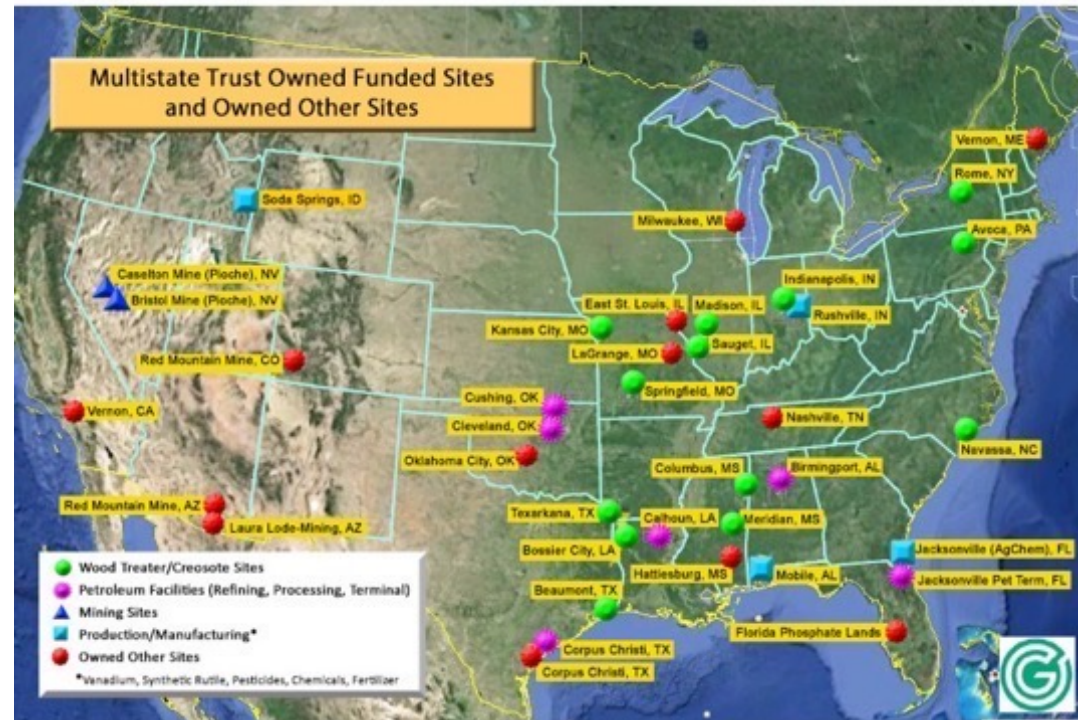
Introductions

- ✓ We are pleased to welcome Dorothy McClung-Lewis as our new Community Liaison
- ✓ Ms. Dorothy's responsibilities will include:
 - Communicating with residents
 - Sharing community member concerns with the Multistate Trust
 - Canvassing door-to-door to share resources
 - Assisting with community events and meetings
 - Identifying local businesses to support local contracting goals
 - Building relationships with residents and local leaders
 - Staffing the Community Resource Building



Introduction to the Multistate Trust

- ✓ Environmental response trust and fiduciary
- ✓ Responsible for owning, investigating, cleaning up, and facilitating safe reuse of about 400 former Kerr-McGee contaminated sites in 31 states
- ✓ State of Mississippi and United States are the beneficiaries



Site Background



- ✓ Wood treating operations: 1928 to 2003
- ✓ Site is ±91 acres
 - Former Main Plant Area – 47 Acres
 - Pine Yard – 44 Acres
- ✓ Most wood treating occurred on Former Main Plant Area, along with storage of raw and treated lumber
- ✓ Pine Yard used mostly to store lumber, but some treatment and unauthorized disposal occurred in limited areas
- ✓ Creosote and other chemicals used to treat the timber
- ✓ Kerr-McGee and its predecessors released contaminants into the soil and groundwater



Work Overview

- ✓ Multistate Trust has performed extensive cleanup work:
 - 3 stormwater ditches ($\pm 3/4$ mile) in partnership with City
 - OU1 contaminated soils in Pine Yard
 - OU2 surface soil in residential and commercial properties
- ✓ EPA approved the Feasibility Study describing alternatives for cleanup of OU3 and OU5 (Main Plant Area)
- ✓ After EPA selects the OU3/OU5 remedy in a Record of Decision, Multistate Trust plans to design and implement the final OU3/OU5 remedy
- ✓ Multistate Trust expects to prepare Feasibility Study for OU4 (area of deeper contamination in the Pine Yard)



Assessing Potential Risk to People From Exposure to Contamination

Judi Durda
Integral Consulting



Superfund – EPA’s Risk Based Program

- ✓ EPA defines “risk” as the chance of harmful effects to health or the environment from exposure to contamination
- ✓ Risk is determined in steps:
 - Evaluate nature and extent of contamination
 - Determine if there are potential risks using EPA’s health-protective criteria
- ✓ Clean up the areas that EPA determines are not health protective



Key Considerations

- ✓ Evaluations are based on conditions that exist *now* or could exist in the *future*
 - Do not evaluate potential risk from past exposure
 - Do not evaluate cause of existing health conditions
- ✓ Chemical presence does not automatically mean there is a potential for health effects
- ✓ The potential for health effects depends on whether:
 - There is *contact* between a person and the chemical
 - That contact (“exposure”) is often and long enough at high enough concentrations that harmful health effects could occur

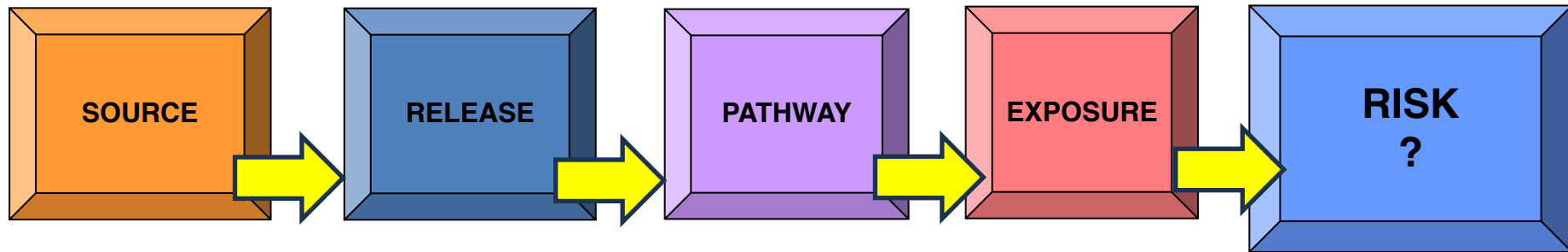


Understanding Contamination

- ✓ Is there a **source** of contamination?
 - Process area, wet lumber, drip tracks
- ✓ Was there a **release**?
 - Spill, leak, drips from wet lumber, air emissions from process upsets and fire
- ✓ Is there a **pathway** for contaminants to move to where people are?
 - Transport in air, dust, and drainage ditches
- ✓ Could an **exposure** occur?
 - Touch, eat, breathe?



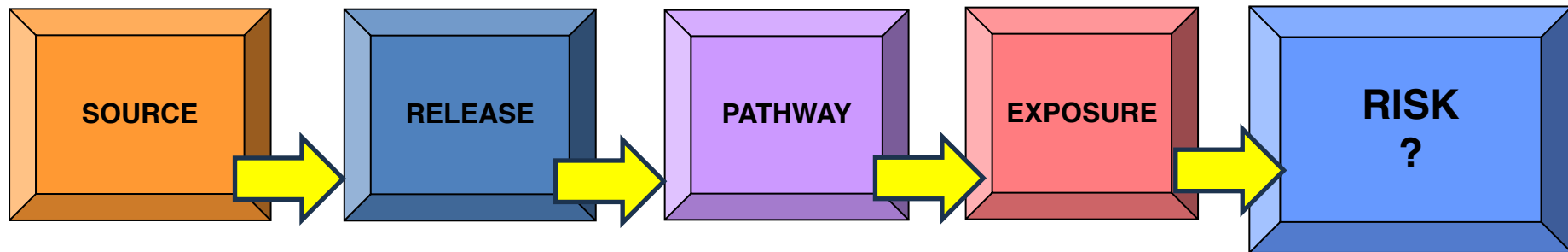
Potential Risks Only if All Steps Present



If the risks exceed levels EPA determines to be safe, then cleanup is required



Potential Risks Only if All Steps Present



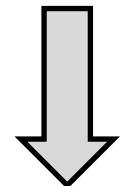
**Kerr-McGee
process
chemicals**

Spill to soil

**Surface
runoff to
ditches and
transport to
a residence**

**Potential
contact with
soil at
residence**

**Contamination
above health-
protective
levels**

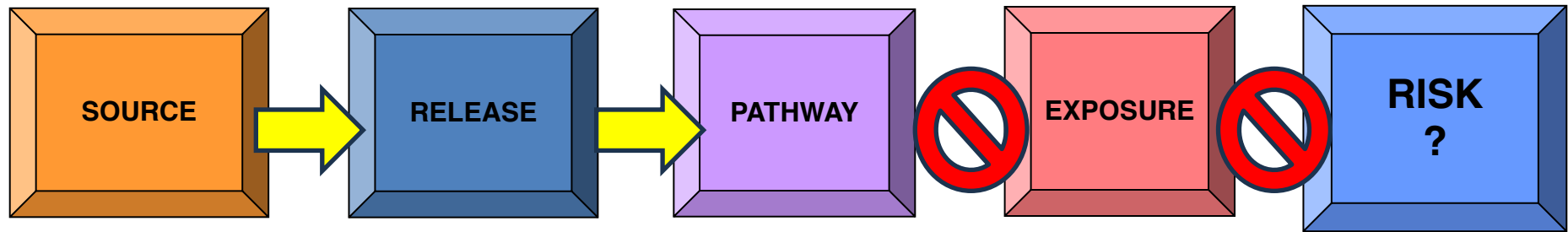


Soil Removal



No Risk if Any Step is Missing

Example 1



Kerr-McGee
process
chemicals

Spill to soil

Move
through soil
to
groundwater

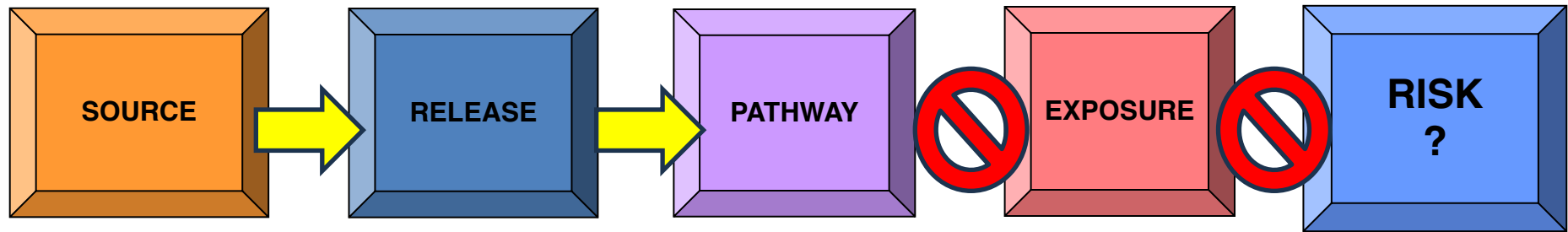
No use of
contaminated
groundwater
by people

No risk



No Risk If Any Step is Missing

Example 2



Kerr-McGee
process
chemicals

Spill to soil

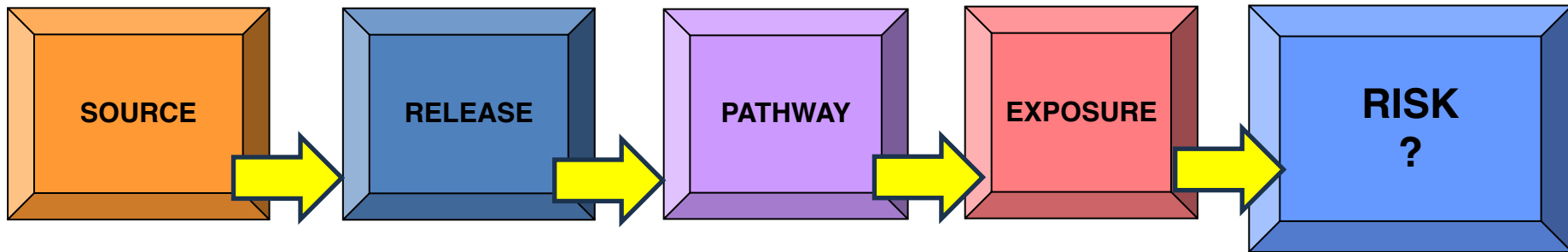
Move
through soil
to deep soil
at the former
plant site

No contact
by local
residents
with deep
soil at former
plant site

No risk



Potential Health Risks Only if All Steps are Present



If the risks exceed levels EPA determines to be safe, then cleanup is required



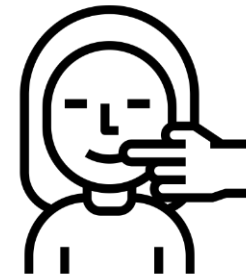
How EPA Determines “Safe”

- ✓ For people, EPA defines safe as the level at which:
 - Non-cancer health effects are unlikely
 - The risk of cancer is very small
- ✓ If risks are above what EPA determines to be safe, they are “unacceptable” and remediation is required



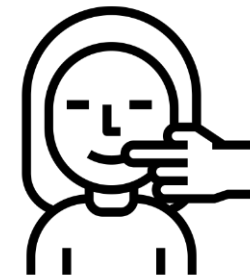
How are Risks Calculated?

- ✓ Determine how contact with contamination can occur
 - Can it touch a person's skin?
 - Could a person breathe it in?
 - Could a person eat or drink it?

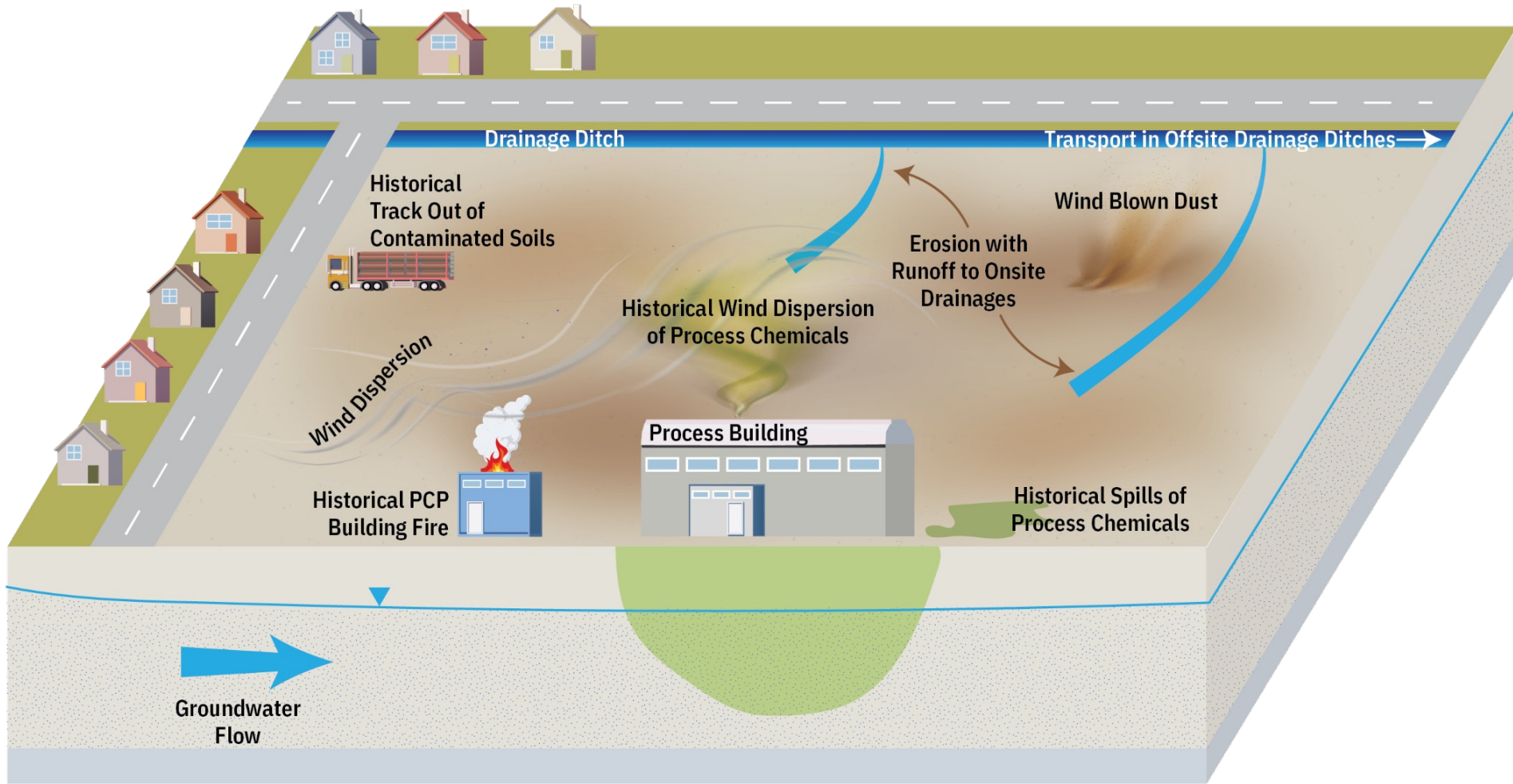


How are Risks Calculated?

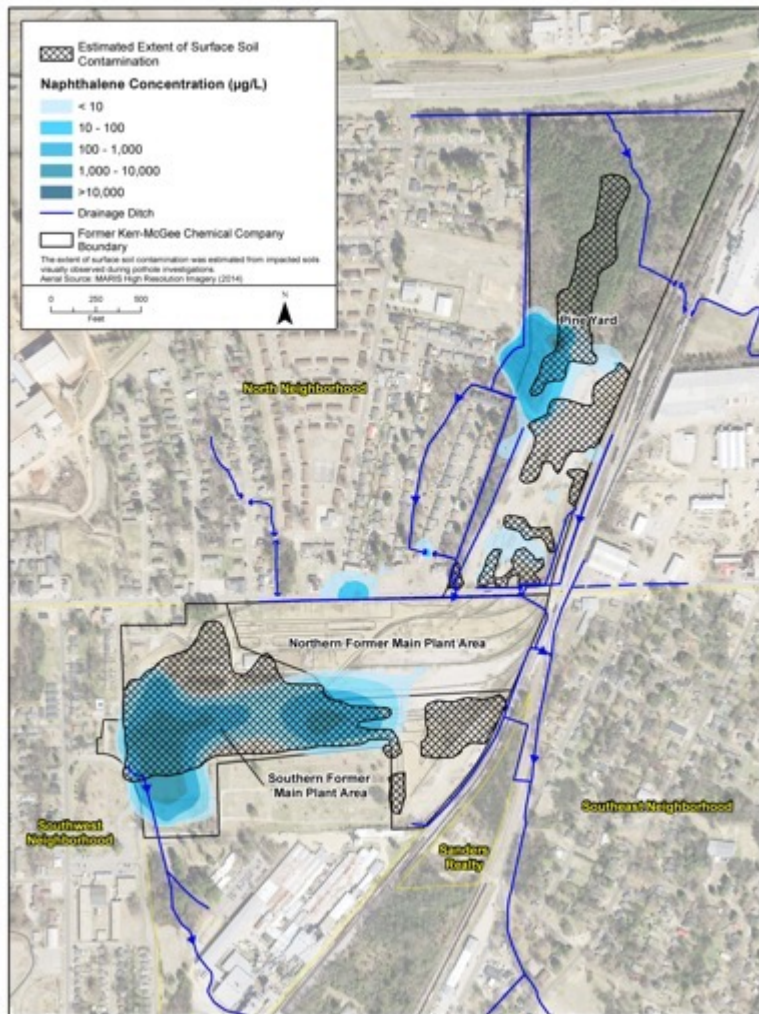
- ✓ Determine how contact with contamination contact can occur
 - Can it touch a person's skin?
 - Could a person breathe it in?
 - Could a person eat or drink it?
- ✓ Calculate the potential for exposure to cause health effects based on:
 - **How often** and **how long** a person contacts the contamination
 - **How much** contamination is present
 - **How toxic** is the contaminant



Source, Release, and Transport



Investigations to Identify Areas Where Cleanup is Required



EPA Approved

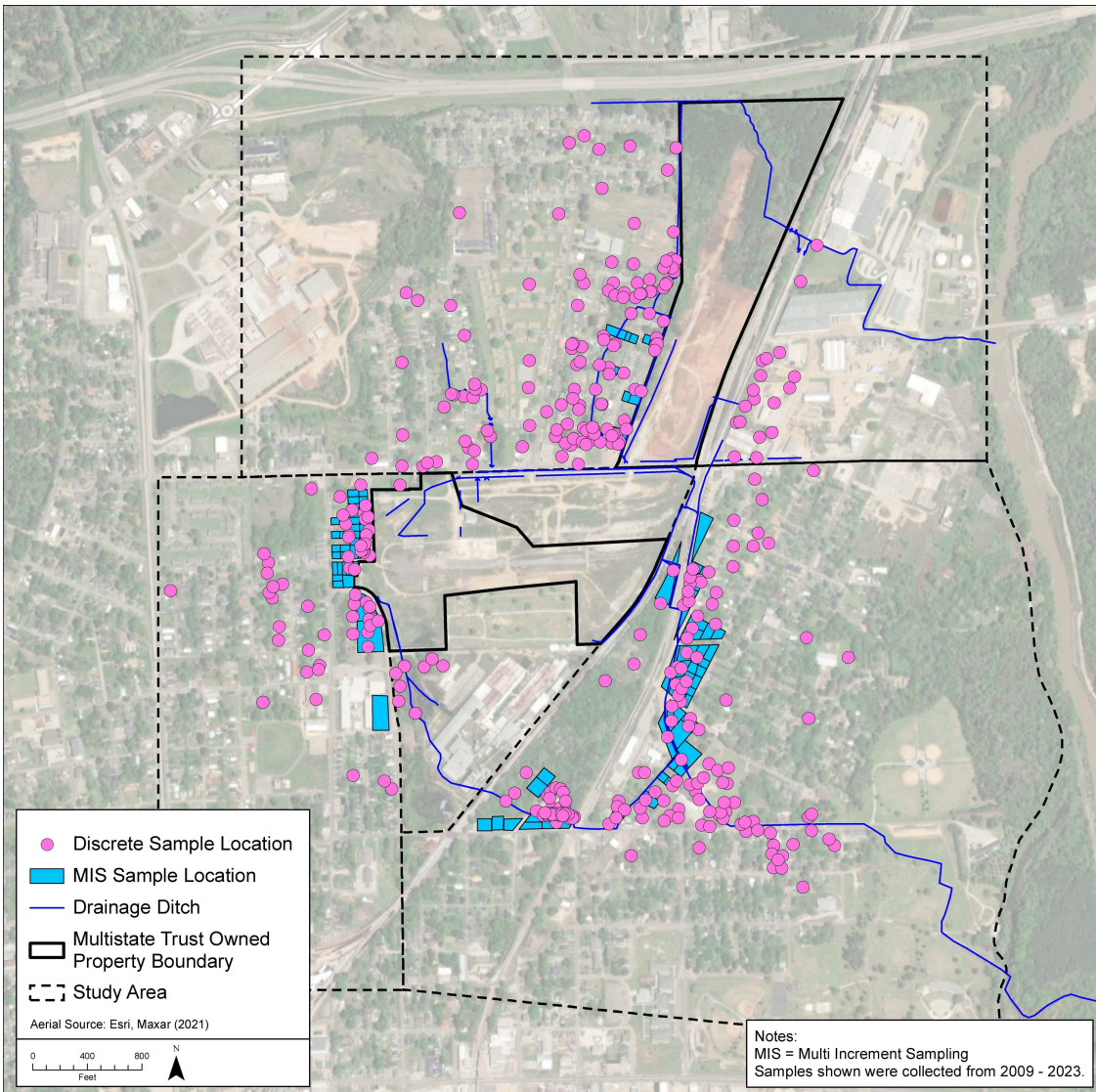
- ✓ Limited Remedial Investigation
- ✓ Phase II Remedial Investigation
- ✓ Private Property Dioxin/Furan Sampling
- ✓ Tap Water Sampling
- ✓ 14th Ave. N. Sewer Sampling
- ✓ Human Health Risk Assessments
- ✓ Baseline Ecological Risk Assessment and Supplemental Sampling
- ✓ Residential Yard Removal Action Work Plan
- ✓ Stormwater Ditch Sediments Removal Action Work Plan and Work Plan Addendum
- ✓ OU-1 Focused Feasibility Study
- ✓ OU-1 Removal Action Work Plan
- ✓ OU-2 Focused Feasibility Study
- ✓ OU-2 Removal Action Work Plan
- ✓ OU3/OU5 Feasibility Study



Residential Investigation



Residential Investigation



- ✓ ±550 soil samples
 - Surface (0-2 ft)
 - Subsurface (8 ft)
- ✓ Additional dioxin/furan samples in previously sampled areas (EPA lowered cleanup level from 1,000 to 50 ppt in 2012)
- ✓ Sampling also included:
 - Tap water sampling at homes with resident concerns
 - Sampling in ditches and groundwater



What the Data Tell Us

- ✓ Stormwater in ditches took contamination offsite
 - Ditch flooding caused contamination to spread in some areas
 - Most ditch contamination occurred during facility's operations
- ✓ Air transport during operations spread some contaminants (dioxin) to surface soil
- ✓ Contaminants in groundwater do not reach people



Residential Cleanup

- ✓ 12 properties of the 96 properties sampled had surface soil contamination that exceed EPA-approved, health-based standard
- ✓ Excavation complete at 10 of 12 properties
- ✓ Remaining 2 properties:
 - One property: no further action required given current zoning and parcel use
 - One property: working with owner on question of tree removal that would be necessary for remaining soil excavation



Local Contracting

Claire Woods
Multistate Trust



Pine Yard Update

- ✓ Removed contaminated soil from OU-1 (Pine Yard)
- ✓ Final grading and seeding planned for Summer 2023
- ✓ Expect to award remaining OU-1 Pine Yard work to Mississippi-based contractor
- ✓ Work will allow for reuse opportunities for ±20 acres
- ✓ EPA intends to include the haul road as part of the remediation of OU-4 (Pine Yard Deep Zone)



Local Contracting Update

- ✓ PPM Consultants, Inc. will be new prime contractor:
 - Jackson office, with Columbus-based staff
 - Responsibilities include:
 - Operate and maintain the groundwater system
 - General operations and maintenance
 - Staff the Community Resource Building
 - Previous work as a subcontractor
- ✓ Other local contractors and subcontractors:
 - Pine Yard grading – Complete Environmental (Purvis, MS)
 - Electric – Weathers Electric Inc. (Columbus, MS)
 - Roofing – Copper Top Roofing & Sheet Metal (Columbus, MS)
 - Site maintenance – Grassmasters (Columbus, MS)
- ✓ If you are interested in subcontracting at the Site, please Contact Claire Woods (cw@g-etg.com)



Krister Corley, PPM



Greg Virgil, PPM



Redevelopment Planning

Claire Woods
Multistate Trust



Redevelopment Planning Initiative

- ✓ Continue to seek options for future reuses of the Site that are community-supported, safe, beneficial, and economically sustainable
- ✓ We believe the community should have a say in how the Site is used after its cleanup
- ✓ From 2016–2019: we engaged community members in Redevelopment Planning Initiative
- ✓ 2016: MSU prepared drawings to illustrate a range of potential future use concepts, we requested community input
- ✓ 2018-2019: we hosted meetings to discuss community goals for redevelopment (focus groups, listening sessions, neighborhood meetings, etc.)
- ✓ 2020: we prepared a draft master plan, based on community input received to date



Pine Yard – Reuse Next Steps

- ✓ A portion of Pine Yard is now ready for reuse (± 20 acres)
- ✓ We plan to evaluate potential buyers or future owners based on the following factors, in no particular order:
 - Alignment with uses preferred by community and community goals
 - Meets legal requirements under CERCLA, Settlement, and Trust Agreements, etc.
 - Purchaser's economic viability and track record with similar development projects
 - Purchase price (sale proceeds can help pay for cleanup) and/or community benefits
 - Other criteria of importance to the Memphis Town community
- ✓ We welcome input on future use, proposed sale process, and factors for evaluating offers



Pine Yard – A Reuse Proposal

- ✓ Vision: A storm shelter and multi-use indoor/outdoor recreation center
- ✓ Location: The ±20-acre portion off the Pine Yard that is available for reuse and/or portion of Main Plaint Area
- ✓ Ownership: Owned by the City of Columbus, funded through FEMA funds, other grants, and potentially private investors
- ✓ Development elements:
 - Storm Shelter
 - Indoor Basketball/Soccer
 - Community Meeting and Event Space
 - Outdoor Recreation/Walking Trails/Memorial
 - Concessions and vendors
 - Parking
- ✓ Potential benefits:
 - Achieves a community-supported reuse and creates a community asset
 - Allows for revenue generation for City
 - Potential for local employment and business opportunities



Questions and Discussion

